

“Mercury in Vaccines? I thought they took the mercury out of vaccines.”

July, 2010



Unfortunately, too many people are unaware that many vaccines, including some for children, still contain significant amount of thimerosal. Thimerosal is the ethyl-mercury preservative that has been used in vaccines since the 1930's; thimerosal has been used so long that it predates the FDA and, in fact, has never been properly safety tested as a result.

The FDA in 1999 made a recommendation to manufacturers to remove the mercury from vaccines on the CDC's recommended schedule for ages birth to three when they realized that children were receiving a cumulative dose of mercury that was potentially harmful. They did not recall the mercury-containing vaccines, nor were they banned. Instead, they allowed existing stocks to be used up, which took several years. Note that the FDA's directive never applied to vaccines not on the CDC's recommended childhood schedule (for example, Diphtheria/Tetanus).

In 2002, the CDC added flu shots to the childhood schedule for ages 6 months to 5 years without making a recommendation that those vaccines be mercury-free. The majority of flu shots administered still contain a full dose of thimerosal though thimerosal-free formulas are available in ample supply. Iowa, California, Delaware, Illinois, New York, Missouri and Washington currently have enacted state laws that protect vulnerable populations from receiving thimerosal-containing vaccines but enforcement is inconsistent. Additionally, in 2007, the CDC extended the recommended ages for flu shots from 5 to 18 years of age. Potentially, a child today can receive an annual dose of mercury with the FDA and CDC's blessing.

As with regular flu shots, the H1N1 swine flu vaccines will be available with and without mercury according to the CDC, but there is currently no exact information available on what percentage of the supply will contain thimerosal. The CDC and FDA have expressed no preference for administering the H1N1 vaccines separately from the seasonal flu shot despite the lack of testing of the two vaccines in combination. Since even a single flu shot exposes the individual to mercury in excess of the EPA safety guideline (see the illustration below), an individual receiving both vaccines simultaneously will far exceed the safe exposure guidelines

The following are the seasonal flu vaccines for the 2010-2011 flu season, which do not contain mercury: Sanofi Pasteur's Fluzone in the pre-filled syringes or single dose vials (the multi-dose vials do contain thimerosal) or CSL Biotherapies' Afluria in the pre-filled syringes (again, do not get the multi-dose vials). Medimmune's Flumist is an intranasal vaccine without mercury, but it is contraindicated for those under 2 or for anyone with asthma. Also, because it is a live attenuated virus, Flumist recipients can potentially transmit the virus to those they are close to.

As of September 15th, 2009, the FDA had approved 3 Influenza A (H1N1) monovalent (single strain) vaccines that did not contain mercury. The vaccines had been approved as variations of the strains of the companies' previously approved seasonal flu vaccines and follow the same patterns as above. The Sanofi Pasteur single dose syringes and vials are mercury-free, the CSL Biotherapies pre-filled syringes are mercury-free and the Medimmune intranasal vaccine is mercury-free but the above caveats still apply. Of note, anyone with a severe egg allergy or a history of Guillain-Barre

Syndrome should not receive any flu vaccine. Anyone with a hypersensitivity to antibiotics may want to use the Sanofi Pasteur vaccines as they are produced without trace antibiotics.

As of July, 2010, the FDA's website lists the following additional vaccines as still containing full amounts of thimerosal (typically either 25mcg/.5ml dose or 12.5mcg/.25ml dose): DT (Diphtheria/Tetanus) from Sanofi Pasteur TT (Tetanus Toxoid) from Sanofi Pasteur JE-VAX (Japanese Encephalitis) from Research Foundation for Microbial Diseases of Osaka University Menomune (Meningitis) from Sanofi Pasteur in the multi-dose vials

There are still "trace" amounts of thimerosal leftover from the manufacturing process in some vaccines as well, including Sanofi Pasteur's Tripedia (DTaP). For the complete listing, visit: <http://www.fda.gov/BiologicsBlood-Vaccines/SafetyAvailability/VaccineSafety/UCM096228>.

“The amount of mercury is negligible and couldn't possibly hurt anyone.”

This is the sort of statement that could only be made by someone who hasn't done the math. Let's start with some facts:

1. Thimerosal is about half ethyl-mercury (49.4%) by weight.
2. There is very little data on the toxicokinetics of thimerosal (ethyl-mercury). Although the practice has been validated by the FDA, we are currently relying on population studies based on methyl-mercury exposure to guess the "safe" dose of ethyl-mercury, which is a different chemical compound.

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3. What data we have so far from human and primate studies indicates that, while ethyl-mercury clears the blood faster than methyl-mercury, ethyl-mercury also results in a higher amount of inorganic mercury in the brains of primates compared to primates exposed to comparable amounts of methyl-mercury (Burbacher et al. 2005). The half-life of inorganic mercury in different parts of the primate brain ranges from 227 to 540 days (Vahter et al. 1994, 1995).

4. Mercury is bioaccumulative. It builds up in tissues over time.

Now let's do some math:

A typical mercury-containing flu shot has 25 micrograms of mercury in a .5ml dose.

A typical adult female weighs about 150-pounds or 68.2kg.

Recognizing the limitations of the methyl to ethyl comparison, the EPA's recommended maximum daily consumption of methyl-mercury from fish is 0.1mcg/kg/day to prevent health effects in the woman. This 68.2 kg woman should not eat more than 6.82mcg of mercury from fish in a day, but she would be getting 25 mcg of mercury from a vaccine.

To look at one more comparison specific to last fall, the recommendation was that children ages 5-9 needed two doses of H1N1 vaccine. If a parent didn't ensure that the vaccines were mercury-free, a 50 lb (22.7kg) child (whose maximum methyl-mercury dose from eating fish should be 2.27mcg of mercury daily) would, on two separate occasions, have received 25 mcg of mercury from their vaccines. If they received the seasonal flu shots at the same time (2 doses on each of two visits), they would have received about 20 times the EPA's limit for ingested methyl-mercury at each visit!

If you don't think this sounds like a good idea, the solution is simple. Insist on vaccines without mercury! Thimerosal is one of the easiest forms of mercury to avoid. Simply refuse to get a vaccination that contains it and request a mercury-free version. By letting your doctor know that you want mercury-free vaccines, you not only protect yourself, but you educate your doctor and you make it more likely that manufacturers will produce it by providing consumer demand.

Please share this information with anyone you know who is expecting a baby or has a young child.

Wouldn't you want to know?

For further information, visit Safeminds.org

